

## I CLAIM:

1. A rotary heat engine comprising:
  - 5 a) a rotary member mounted for rotation about a horizontally –  
extending drive axis;
  - b) a generally annular array of chambers mounted on said rotary  
member and regularly disposed about said drive axis for absorbing  
heat from a heat source, said array of chambers being partially  
filled with liquid and partially filled with gas;
  - 10 c) a common condenser for cooling fluid from and exchanging fluid  
with said chambers, said condenser being distinct from said array  
of chambers; and
  - d) a regular array of passageways each communicating between said  
common condenser and a respective one of said chambers, said  
15 passageways being circumferentially offset from said chambers for  
selectively trapping gas in chambers on one side of said drive axis  
to maintain an imbalance of liquid in said array of chambers which  
drives said rotary member.
- 20 2. A rotary heat engine as claimed in claim 1 wherein said array of chambers  
is exposed to sunlight as said heat source.
3. A rotary heat engine as claimed in claim 2 further comprising a glass  
member interposed between said array of chambers and incident sunlight.
- 25 4. A rotary heat engine as claimed in claim 2 further comprising means for  
shading said condenser.
5. A rotary heat engine as claimed in claim 1, wherein said liquid has a  
30 boiling point below that of water and said gas is the vapor of said liquid.

6. A rotary heat engine as claimed in claim 1 further comprising means for water-cooling said condenser.

7. A rotary heat engine as claimed in claim 1 wherein said condenser is  
5 generally annular and is mounted on said rotary member.

8. A rotary heat engine as claimed in claim 1 wherein said condenser is axially offset from said array of chambers.

10 9. A rotary heat engine as claimed in claim 1 wherein said condenser is radially offset from said chambers.

10. A rotary heat engine as claimed in claim 1 wherein said drive axis defines a radial plane, said passageways comprise ducts extending in said radial plane,  
15 and said ducts are angularly offset in said radial plane.

11. A rotary heat engine as claimed in claim 1 wherein at least one of said passageways includes a regenerator.

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